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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/691,328	10/22/2003	Aaron L. Odom	MSU 4.1-643	1409
21036	7590	04/11/2006	EXAMINER	
MCLEOD & MOYNE, P.C.			NAZARIO GONZALEZ, PORFIRIO	
2190 COMMONS PARKWAY			ART UNIT	PAPER NUMBER
OKEMOS, MI 48864			1621	

DATE MAILED: 04/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/691,328

Applicant(s)

ODOM ET AL.

Examiner

Porfirio Nazario-Gonzalez

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-8 and 25-46 is/are allowed.
- 6) ☒ Claim(s) 9-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 21 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The abbreviation "dme" is improperly defined. It is not dimethylethane, as recited in claim 21, but rather 1,2-dimethoxyethane. See pages 25 and 27 of the instant specification. Please correct. Also note that the structure of compound (5) at page 18 of the instant specification is incorrect since it does not include the DME bidentate molecule bonded to the metal.
3. Claims 9-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The phrase "A compound comprising" is vague as to the meets and bounds of the claims. The phrase is followed by the structure representation of the compound. However, the word "comprising" implied an additional component in the compound which is not included in the structural representation. Please clarify.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 21 and 22 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Oskam et al., Journal of Organometallic Chemistry, Vol. 459, No. 1-2, pp. 185-198 (1993). The Oskam et al. article disclose the compounds of the type  $\text{Mo}(\text{NR})_2\text{Cl}_2\text{L}_2$  where L is  $\frac{1}{2}$  DME and R is 4-Br-2,6- $\text{iPr}_2\text{-C}_6\text{H}_2$ , 4-CN-2,6- $\text{iPr}_2\text{-C}_6\text{H}_2$ , 3,5- $\text{Me}_2\text{-C}_6\text{H}_3$ , 2- $\text{iPr-C}_6\text{H}_4$ , 2- $\text{CF}_3\text{-C}_6\text{H}_4$ , 2- $\text{Ph-C}_6\text{H}_4$ , and 1-adamantyl, which reads on claim 21. See Table 1 on page 186. The article also disclose the compounds of the type  $\text{Mo}(\text{NR})_2(\text{CH}_2\text{R}')_2$  wherein R is defined above and R' is  $\text{tBu}$  or  $\text{PhMe}_2\text{C}$ , which reads on claim 22. See Table 2 on page 187. Note that the definitions of R read on the recited term Ar (aryl).

6. Claim 21 is rejected under 35 U.S.C. 102(b) as being clearly anticipated by Gibson et al., J. Chem. Soc., Dalton Trans., Vol. 2, pp. 161-165 (1999). The Gibson et al. article disclose the compound  $[\text{Mo}(\text{NR})_2\text{Cl}_2(\text{dme})]$  wherein R is 2,6- $\text{Pr}_2\text{-C}_6\text{H}_3$  and dme is 1,2-dimethoxyethane. See Scheme 1.

***Allowable Subject Matter***

7. Claims 1-8 and 25-46 are allowed.

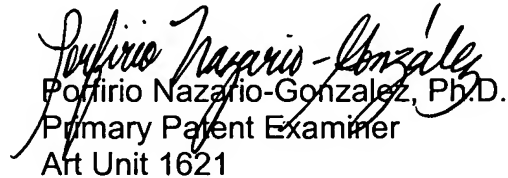
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Porfirio Nazario-Gonzalez whose telephone number is 571-272-0641. The examiner can normally be reached on Mon.-Fri. (9:30 AM - 6:00 PM).

9. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann R. Richter can be reached on 571-272-0646. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

10. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Porfirio Nazario-Gonzalez, Ph.D.  
Primary Patent Examiner  
Art Unit 1621

PNG  
April 6, 2006